

CONSERVING POWER OF A SYSTEM ON A CHIP USING SPEED SENSING

ABSTRACT OF THE DISCLOSURE

5 A method for conserving power begins by measuring processing speed of at least
a portion of an integrated circuit (IC) to produce measured processing speed. The portion
of the IC may be a test circuit, a critical path of the IC, and/or a replica of the critical path
of the IC. The processing continues by comparing the measured processing speed with a
critical processing speed for the at least a portion of the integrated circuit. The
10 processing then continues by adjusting supply voltage to the integrated circuit to reduce
power consumption of the integrated circuit when the measured processing speed
compares favorably to the critical processing speed.